

Environmental Assessment  
and  
Decision Notice  
for the  
Bass Lake Restoration Project

Prepared by:

MONTANA FISH, WILDLIFE & PARKS  
Region 1

FISHERIES Bureau



***Montana Fish,  
Wildlife & Parks***

## ENVIRONMENTAL ASSESSMENT AND DECISION NOTICE FOR THE BASS LAKE RESTORATION PROJECT

June 20, 2013

### **Project Proposal and Justification:**

Mud Creek is a small second-order stream that originates in the Whitefish Mountain Range, is a tributary to Therriault Creek, and has a base flow that ranges from about 1-3 cubic feet per second. An earthen dam on Mud Creek constructed in the mid to late 1940s at river mile 0.3 created Bass Lake, which has a surface area of 11.8 acres, a maximum depth of approximately 11.5 feet, and a volume of 50.6 acre-feet.

Historical fisheries data for Mud Creek is limited. However, the lack of natural barriers prior to the creation of Bass Lake suggests that native species such as westslope cutthroat (*Oncorhynchus clarkii lewisii*), bull trout (*Salvelinus confluentus*), and mountain whitefish (*Prosopium williamsoni*) likely utilized Mud Creek historically. In the early 1900s rainbow trout (*Oncorhynchus mykiss*) and brook trout (*Salvelinus fontinalis*) were either introduced to or colonized the Mud Creek watershed. Shortly after Bass Lake was constructed, largemouth bass (*Micropterus salmoides*) and bluegill (*Lepomis macrochirus*) were illegally introduced to the lake, and sometime in the mid 1990s northern pike (*Esox lucius*) were illegally introduced. Sampling conducted by Montana Fish, Wildlife & Parks (FWP) confirmed that northern pike are confined to Bass Lake and that portion of Mud Creek 0.26 miles upstream of the lake.

Since the construction of Libby Dam in 1972, northern pike observations in the Tobacco River and Lake Koocanusa have been rare, but the occurrence of northern pike in FWP annual gill-netting surveys of Lake Koocanusa has increased since northern pike were introduced into Bass Lake. Angler observations of northern pike have also become more frequent, primarily around the mouth of the Tobacco River. Northern pike emigration from Bass Lake is likely contributing to the persistence of northern pike in Lake Koocanusa, which may ultimately result in the establishment of a sustaining population of northern pike in Lake Koocanusa. Northern pike in the Tobacco River and Lake Koocanusa likely prey upon native game fish species (including cutthroat and bull trout) and nonnative fish species (rainbow trout, mountain whitefish, brook trout, and kokanee salmon [*Oncorhynchus nerka*]). An established northern pike population in Lake Koocanusa will likely lead to a reduction in the abundance of these other species. Therefore, FWP seeks to remove the population of illegally introduced northern pike from Bass Lake in order to reduce the likelihood of developing a self-sustaining population of northern pike in Lake Koocanusa. In a draft environmental assessment (EA) dated May 8, 2013, FWP identified the removal of northern pike using a combination of netting, electrofishing, and trapping as the preferred alternative to accomplish this objective. The draft EA

evaluated the potential human and environmental impacts of the preferred and no-action alternatives.

### **Location of Project:**

The earthen dam on Mud Creek is located at river mile 0.3, and Mud Creek flows into Therriault Creek at river mile 0.8. Therriault Creek enters the Tobacco River approximately 12.5 miles upstream of Lake Koocanusa. Bass Lake is located on the west side of Highway 93, approximately 6 miles southeast of Eureka, Montana. Specifically, Bass Lake is located within Township 35 North, Range 26 West, Section 4, Lincoln County, Montana, Latitude 48.82385 degrees North, Longitude -114.95818 degrees West. Mud Creek and the vast majority of Bass Lake are located on private property, but a small portion of the northeast side of the lake is bordered by National Forest.

### **Environmental and Social Impacts of Project:**

The proposed project's objective is to remove the northern pike presently found in Bass Lake and 0.26 miles of Mud Creek immediately upstream of Bass Lake in order to reduce the potential for northern pike to emigrate into downstream waters and develop self-sustaining populations. The impacts to recreational users from this project are expected to be short-term and minor due to the following reasons. The majority of Bass Lake and the short portion of Mud Creek that would be impacted by this project are located on private lands that lack public access. Therefore, current angling opportunity in Bass Lake and Mud Creek is extremely limited and recreational use is low. Although the removal of northern pike from Bass Lake may reduce the abundance of northern pike in the Tobacco River and Lake Koocanusa, this will ultimately result in a reduction of predation on other popular game fish species, including cutthroat, rainbow, bull trout, mountain whitefish, and kokanee salmon, which may benefit these prey species.

The lake may be restocked with cutthroat trout following the successful removal of northern pike.

Evaluation of the potential effects indicates the preferred alternative may have minor, or short-term and minor, effects on populations of nontarget birds and mammals that become entangled in the gill nets. FWP would minimize the potential impacts to these nontarget animals by limiting the duration the nets fish without removing captured fish and properly disposing of dead fish to limit attraction.

### **Public Involvement:**

In compliance with the Montana Environmental Policy Act, an EA was prepared and circulated for public comment from May 8 through June 8, 2013. Notices

were advertised in three local newspapers (Daily Inter Lake, Tobacco Valley News, and Western News), a news release was done, and notification was mailed to local conservation groups, timber companies, selected businesses, natural resource agencies, and local landowners. Copies of the EA were made available at three local libraries, the state library in Helena, the FWP Region 1 headquarters in Kalispell, and the FWP internet web site. In addition to the EA, FWP invited local landowners surrounding Bass Lake to a public meeting to exchange information and gather input. During the public comment period for the EA, FWP received comments from five individuals. The comments were varied, but could basically be divided into two groups. FWP received four comments in support of the preferred alternative, and a single comment that opposed stocking westslope cutthroat trout in Bass Lake upon the successful removal of northern pike from the lake. Listed below are the comments that FWP received and our responses to those comments.

### **Comments in support:**

- I support this project even though it seems like a waste of money. Your EA seems to indicate that short of poisoning the lake, gill netting, shocking, etc., will never get all the northernns, so once you stop spending public money, which will occur, the northernns will come back. Seems like you feel you need to do something, even if it will likely fail in the long-term.
- I support Alternative 2 for the removal of pike from Bass Lake and Mud Creeks. My second choice would be the use of chemicals (rotenone) to remove northern pike from Bass Lake and Mud Creek, and then restocking with westslope cutthroat trout.
- I think if you must remove the pike, the netting and trapping is the way to do it.
- I am in favor of the Bass Lake Restoration Project

### **Response:**

FWP appreciates the recognition of our efforts on this project, and we agree that the current fish species present in Lake Koocanusa provide a valuable and unique recreational resource for the state of Montana, and that the establishment of northern pike in Lake Koocanusa threatens this resource.

It is unknown if mechanical removal methods are capable of complete removal of northern pike from Bass Lake since northern pike are naturally reproducing in the lake and young pike would be too small to capture with nets. Gill netting has been used successfully to remove unwanted fish from relatively small lakes, generally less than 5 acres in size. However, the relatively small size (11 acres)

and shallow depth (less than 12 feet) suggest to FWP that mechanical removal of northern pike may be achieved with an extended effort. FWP would use gill nets as the primary removal method over a 2-year period and then evaluate the progress of the effort. At the end of the evaluation period, if FWP were not successful at removing northern pike from Bass Lake, we may evaluate other alternatives.

**Comment:**

- There were bass in the lake back in the seventies. They did very well in the lake and never did migrate down into the creek below. The otter spent a few weeks there and pretty much wiped the bass out. The water is too warm for cutthroat to survive. If you're hell bent on eradicating the pike in there, why not plant bass back in the lake. Or better yet plant brook trout in it. Brook trout will do well and are more native than the fish and game want to admit. They were here when Lewis and Clark explored the country.

**Response:**

Largemouth bass also have the potential to impact other game fish species, particularly native fish in some locations, such as Lake Koocanusa. Therefore, FWP does not support stocking largemouth bass in Bass Lake. A primary goal of FWP's fisheries program is to protect, maintain, and restore native fish populations, life histories, and genetic diversity, and continue to provide angling opportunities for native species whenever possible. This goal is backed by FWP policy and state law, which require FWP to implement programs that manage sensitive native species in a manner that assists in the maintenance or recovery of those species, and that prevents the need to list the species under the federal Endangered Species Act (ESA).

FWP did include stocking westslope cutthroat trout after northern pike were removed from Bass Lake as an option in the EA. However, the decision to stock Bass Lake would be made after discussing the alternative with the landowners surrounding Bass Lake. If stocking were to occur, it would be a single event in order to mitigate for the loss of fish until fish from upper Mud Creek could recolonize the lake. FWP expects that upon successful removal of northern pike from Bass Lake, brook trout will become the most abundant species in the lake.

Brook trout are not native to waters in Montana, but were first introduced in 1889 from eastern North America. The Lewis and Clark expedition first entered Montana in about April 1805, on their route to the Pacific coast, and returned in about July 1806.

**Decision Notice:**

Based on the comments FWP received during the public comment period for the draft EA and landowner meeting for the Bass Lake Restoration Project, we have prepared the final EA for this project. No changes were made to the draft EA; therefore, the draft will become the final document together with this decision notice. Due to the urgent need to remove northern pike from Bass Lake and eliminate the source of northern pike to Lake Koocanusa, I recommend that we implement plans to remove the northern pike from Bass Lake and Mud Creek as soon as possible.



6/21/2013

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James R. Satterfield Jr., Ph.D.  
Supervisor

Date